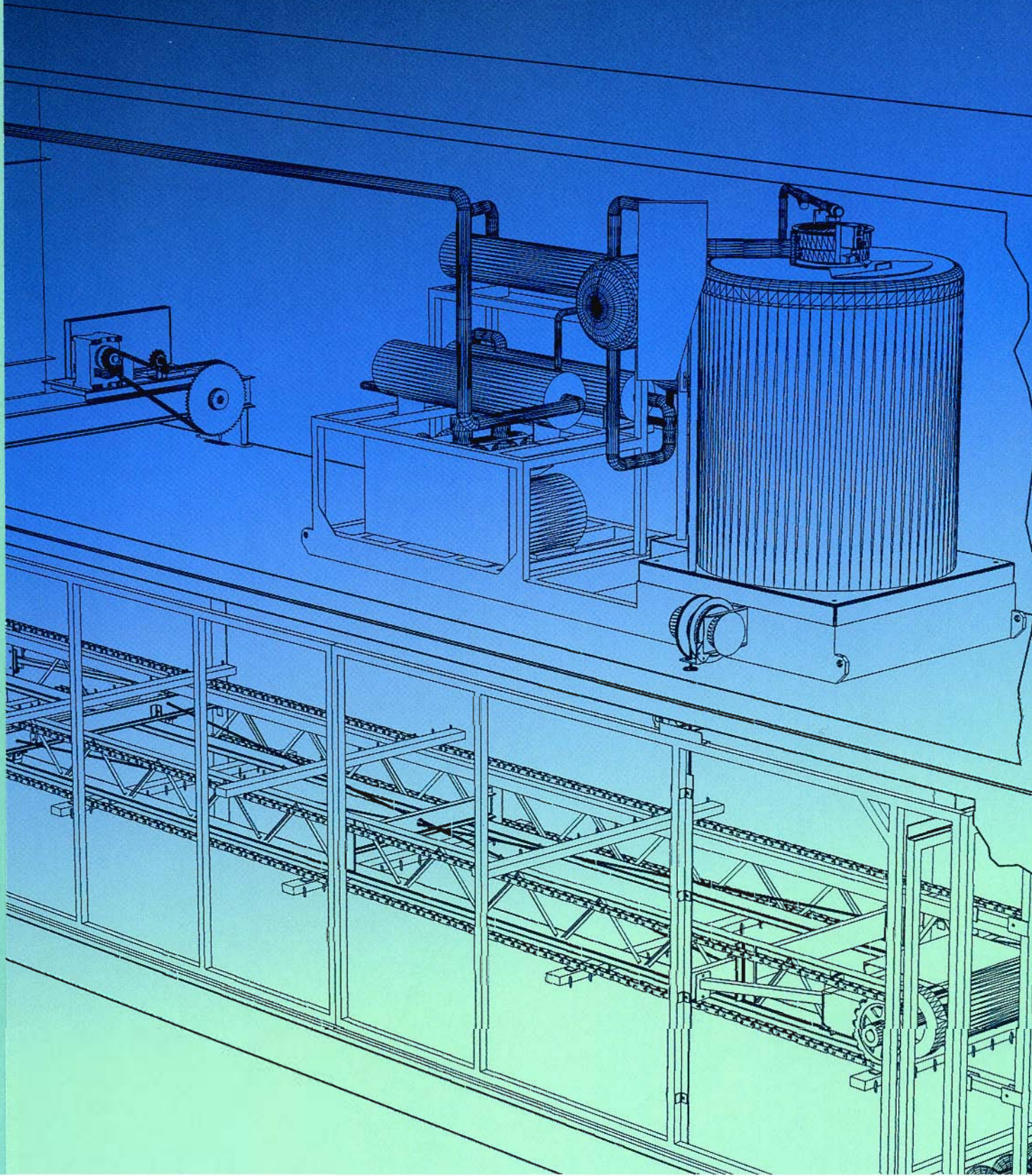


Container
Ice
Systems

North Star[®]

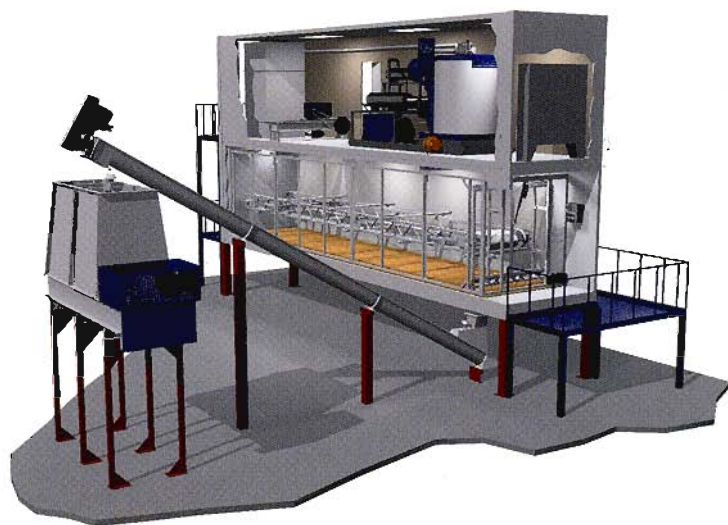
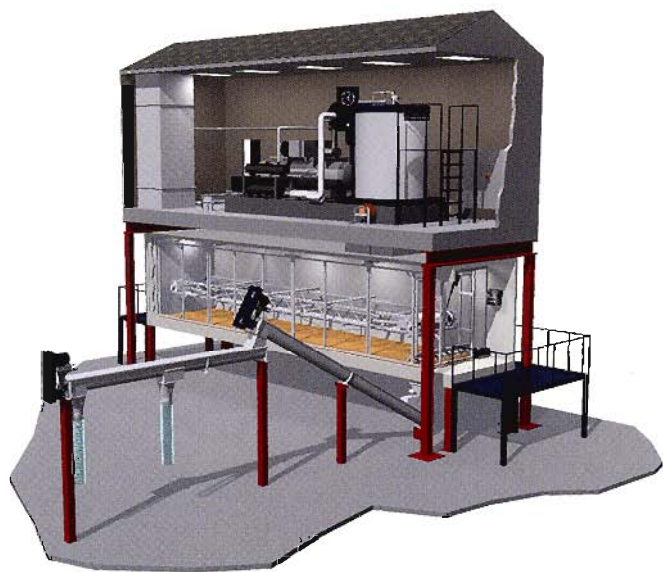


North Star[®]

Container Ice Systems

North Star has the answer for customers who need ice plants that are easy to install and can be moved from place to place - a popular North Star ice system installed in 40-foot cargo containers. These pre-assembled ice plants are easily transportable by truck or rail, making them particularly useful for operations in remote locations, or those that need to move ice making facilities from one project site to another.

Each system combines a factory piped and wired North Star packaged ice making unit and an automatic ice rake installed in separate containers. When the containers are combined, the ice maker drops the ice directly into the storage bin with the rake. The rake levels the ice in the container as it is made, using all available storage volume, and discharges it automatically when it is needed.



North Star container rake systems are available in a number of configurations, and can also be designed for either screw conveyor or pneumatic delivery systems.

1

One Container System

For the greatest ice making capacity, our system incorporates a North Star Model 60 or Model 90 ice maker package with a North Star rectangular rake. The rake is fitted into a 40-foot high cube refrigerated container, which can store up to 22 tons (20 MT) of ice and distribute it automatically on demand. Due to their dimensions, the ice maker packages will not fit into a container and must be installed above the rake container on customer-supplied supports with an appropriate enclosure. The package units can produce 35 to 50 tons (31 to 45 MT) of ice per day depending on the model. An external screw conveying system can also be added to this configuration.

2

Two Container System

Our simplest system teams a Model 40 (or smaller) packaged North Star ice maker, with a capacity of 20 tons (18 MT) per day, and a North Star rectangular ice rake. The ice maker package and the rake are each housed in separate 40-foot high-cube containers. In the field, the ice maker container is mounted on top of the rake container. This system can be configured with an external screw conveying system to a day tank or other use points.

3

Three Container System

When pneumatic delivery of ice is required, North Star offers two options. The pneumatic system can be shipped loose for installation in the field, or it can be installed in a standard 40-foot refrigerated container that has two compartments - one refrigerated and one at ambient temperature. The feed screw and conveying valve are located in the refrigerated section, and the blower and air chiller in the ambient section. The ice rake and ice maker modules are field-mounted above this container.

Product Features

- *Factory assembled modules with fully installed systems*
- *Easily transportable*
- *Simple installation; just stack, connect electrical and hoist cables, and power and water supply.*
- *Wide range of ice making capacities*
- *Heavy duty equipment for industrial applications*
- *Fully automatic ice making and delivery*
- *Screw conveyor or pneumatic delivery systems*

Standard Features

North Star container ice systems can be configured to meet your requirements. The most common components for each container are listed below. Please contact North Star for other options.

Ice Maker Container

- Reconditioned 40-foot high cube container with access door, interior lighting, and floor openings for ice drop, rake hoist cables and electrical cables.
- North Star flake ice maker (Model 40 or smaller; for larger ice makers, refer to North Star's one container system)
- Refrigeration package (all components factory piped, wired, insulated and painted)
- Ice rake hoist assembly
- Electrical control panel to automatically control the compressor, ice maker, ice rake and hoist, discharge screw, bin door, slide gate, external screw conveyor and/or pneumatic ice delivery system.

Rake Container

- Reconditioned 40-foot high cube insulated container with new refrigeration unit, interior lighting, and insulated door. Includes openings to receive and discharge ice, and for rake hoist and electrical cables.
- Galvanized steel frame and bin liners.
- North Star rectangular ice rake
- Motorized bin door
- Discharge screw conveyor
- Discharge outlet slide gate (field installed)

Pneumatic Delivery Container

- Reconditioned standard 40-foot insulated container with new refrigeration unit, access door, and interior lighting. An insulated partition wall with door divides the cool side from the ambient side.
- Galvanized metering hopper with ice level control
- Metering screw conveyor with lump breaker and drive assembly
- Blower unit with motor
- Air chiller with condensing unit
- Conveying valve
- Electrical control panels for external icing stations
- Pneumatic components, including line couplings, conveying lines, elbows, and diverter valves (shipped loose for field installation)

Specifications	One-container system	Two-container system	Three-container system
	with Model 60/Model 90 package*	with Model 40 package*	with Model 40 package*
Flake ice production	35/50 tons** 31/45 MT	20 tons** 18 MT	20 tons** 18 MT
Storage capacity	22 tons 20 MT	22 tons 20 MT	22 tons 20 MT
Delivery system	Screw conveyor	Screw conveyor	Pneumatic system
Delivery rate	10 tons/hour 9 MT/hour	10 tons/hour 9 MT/hour	10 tons/hour 9 MT/hour

* Other configurations are available. Contact North Star for additional options.

** Capacity in 2,000 pound tons (909 kg) per 24 hours with -25° F (-32° C) evaporator and 60° F (16° C) water supply temperatures, 1/16" (1.5 mm) ice thickness. For other requirements and conditions consult North Star or refer to our capacity guidance curves (IMC-2-SS or -CS). For concrete cooling applications, the customer must supply separate cooling tower. Specifications subject to change without notice.

North Star

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